

THE AIR LAND SEA BULLETIN

Air Land Sea Application (ALSA) Center



TRADOC-MCCDC-NWDC-AFDC

Issue No. 99-2

September 1999

CONTENTS

Feature Articles

**Contractor Support on the Information
Age Battlefield**

Mr. Zaborowski 4

**Combined Intratheater Airlift in the
Korean Theater**

1LT (P) Alfidi 6

A2C2 - A Command Responsibility

LTC Murray 9

In-House

Director's Comments 3

ALSA Projects Update 14

THE AIR LAND SEA BULLETIN (ALSB)

Air Land Sea Application (ALSA) Center

114 Andrews Street

Langley AFB VA 23665-2785

Air Land Sea Bulletin Staff

Director

Colonel Edward S. Modica, Jr., USAF
DSN 575-0960
COMM (757) 225-0960
alsadirector@langley.af.mil

Managing Editor

Shirley M. Ferguson, Civilian
DSN 575-0850
COMM (757) 225-0850
alsaeditor@langley.af.mil

Publications Officer

Major Louis N. McDonald, USAF
DSN 575-0903
COMM (757) 225-0903
alsapubs@langley.af.mil

Publications NCO

MSgt Todd T. Loisel, USAF
DSN 575-0848
COMM (757) 225-0848
todd.loisel@langley.af.mil

Layout

Cheryl Y. Parris, Civilian
DSN 575-0852
COMM (757) 225-0852
cheryl.parris@langley.af.mil

Purpose: ALSA Center publishes *The ALSB* three times a year. *ALSA* is a multiservice DOD field agency sponsored by the US Army Training and Doctrine Command (TRADOC), Marine Corps Combat Development Command (MCCDC), Navy Warfare Development Command (NWDC), and Headquarters Air Force Doctrine Center (AFDC). The bulletin is governed by Army Regulation 25-30, paragraph 9-18. It is a vehicle to "spread the word" on recent developments in joint warfighting concepts, issues, and service interoperability. The intent is to provide a cross-service flow of information between and among readers around the globe. **Disclaimer:** *Since the ALSB is an open forum, the articles, letters, and opinions expressed or implied herein should not be construed to be the official position of TRADOC, MCCDC, NWDC, AFDC, or ALSA.*

Submissions: We solicit articles and reader's comments. Contributions of 1500 words or less are ideal. Submit contributions double-spaced in MS Word on 3.5 inch disk with one paper copy. Include name, title, complete unit address, telephone numbers, and e-mail address. Graphics can appear in article, but you must also provide separate document for each graphic. Send e-mail submissions to alsaeditor@langley.af.mil. ALSA reserves the right to edit content to meet space limitations and conform to the ALSB's style and format. Next issue: December 1999; **Submission DEADLINE: close of business, 6 October 1999.**

Mailing/Distribution: This publication is packaged for mailing by the ALSA Center and distributed by ATZG-BO-M, Bldg 183, McNair Drive, Ft Monroe VA, 23651.

Reprints: *ALSB* grants permission to reprint articles. Please credit the author and *The ALSB*. Local reproduction of the *ALSB* is authorized and encouraged.

Subscriptions: We continue to validate our subscribers's information and requirements. If you wish to **continue your subscription** of the *ALSB*, please fill out and return the enclosed **Subscriber Request Form** or send your information via e-mail to our Publications NCO at—todd.loisel@langley.af.mil.

ALSA PUBLICATIONS—ON THE WORLDWIDE WEB (WWW)

Visit our homepage at—<http://www.dtic.mil/alsa>

ALSB—From our homepage you can access the current and past issues. **Other ALSA Publications**—executive summaries for all publications are available, with a hyperlink to access them. Most current publications can be downloaded from the homepage.

ALSA publications are in portable document format (PDF) extension. You must have *Adobe Acrobat Reader* and a WWW browser such as *Internet Explorer* or *Netscape Navigator* to read, copy, or print these documents.

Also on our homepage you'll find information about ALSA's mission, its association with other doctrinal organizations, who's on our staff, and how we're organized.

You'll find our homepage is uncomplicated and easy to navigate. This makes it more usable for individuals new to using the internet and for units using slower circuits and older software. If you have suggestions for improving the site, please send your ideas to alsawebmaster@langley.af.mil.

Secretary of the Army

Commander, U.S. Army Training and Doctrine Command

DIRECTOR'S COMMENTS

The past few months have been busy and very rewarding here at the ALSA Center. As the air war in Kosovo was beginning, there was an increased interest in our publications, mostly from our Internet homepage. We provided several hard copies of our publications, including integrated fire support, airspace command and control, and even drafts of current projects. Feedback from the field indicates that we have some updating to do, but for the most part, our work is on time and on target.

Now is the time to capture lessons learned in virtually all aspects of the conflict and to keep an open mind as to what will transpire over the coming months. We invite the warfighters to provide articles on their experiences, especially concerning the joint/combined war planning and operations process and what needs to be done better. We are about to publish a classified *Multiservice Tactics, Techniques, and Procedures for Suppression of Enemy Air Defenses* publication. The publication was used during the air campaign, but it was also a reference document provided to Task Force Hawk in the event that they would become engaged. An off shoot of that effort was a request to update the *Multiservice Procedures for Antiradiation Missile Employment in a Joint Environment*. Since publication of this manual, there have been several advances, and the publication needs to be expanded to cover combined weapons and tactics our allies employ. More importantly, airspace control and management of aircraft in a joint/combined contingency must also be examined with close scrutiny of air battle management. Standardized tactics, techniques, and procedures (TTP) of this important mission are a must for future operations, especially in Europe.

Our NATO partners are undertaking a tooth to tail rework of all standing NATO agreements and operational standards. In addition, a complete review of doctrine is now being conducted by a team at NATO Headquarters in Brussels, Belgium. The recent expansion of NATO, coupled with its first "war" as an organization, has brought

on a need for a fresh look. Over the past year and a half, ALSA has received a series of visitors from NATO countries, who have come with the expressed purpose to copy our methods for developing TTP and to expand this process into the development of new NATO doctrine.

For the past 25 years, ALSA has provided the warfighter with the answers to warfighting, unmatched by any other organization in our military. We are striving to make our process even more efficient so that the rapidly changing nature of warfare can be reflected accurately in each of our publications. ALSA is researching an immediate change program to be distributed through the Internet, which will provide the latest TTP information. The more the services integrate their command and control systems and make them more collaborative, the faster change will occur. We will be there to provide the best practices for everyone's benefit.

The articles in this edition of the ALSB deal with some of these changes that are ongoing in various theaters. The first article, by Mr. Zaborowski, deals with a hot subject at the Joint Chief, namely contractors on the battlefield. When you read this article, it will become very clear that contractors have become an invaluable part of our future operational plans. His real-world experience is interesting reading. Lieutenant Alfidi's article on intratheater airlift focuses on the integrated command and control process and how the services have become dependent on each other to provide coordination and liaison. The last article, by LTC Murray, is timely because it expresses his ideas on Army airspace command and control and where the focus at the command level must be to ensure proper use of the "third dimension." This article provides some valuable insights into the Army philosophy on airspace command and control. Enjoy!


EDWARD S. MODICA, JR., Colonel, USAF
Director

CONTRACTOR SUPPORT ON THE INFORMATION AGE BATTLEFIELD

by

Mr. Michael E. Zaborowski

AR/AAMDC

Fort Bliss, TX

DSN 978-3323

E-Mail: zaborowskim@emh10.bliss.army.mil

Information-specific technologies are the foundation of current and future efforts to protect the force from the stressing theater missile (TM) threat. Computers and communications equipment are the battle tools of *Information Age Warfare*, and units performing a theater missile defense (TMD) mission normally require lots of these specialized tools to adequately perform their challenging mission. Computers, or “boxes” as they are called by their operators, constantly go through high-tech software and hardware upgrades to give the operator the latest edge over the threat.

Information-specific technologies for TMD are expanding rapidly and increasing in complexity. It has been a challenge for all the military services to build a training and doctrine base to keep up with the pace and provide trained soldiers, sailors, airmen, and marines to the field who can effectively operate and employ these systems. In many instances, the real-world requirements for these systems result in fielding equipment with the institutionalized training base just in the process of being established. The result is that many of the experts on the equipment are from the companies who built the equipment. More and more it has become common to see civilian contractors in hazardous duty areas assisting and training military personnel on these systems.

An example of this phenomena occurred during 1998 when the 32d Army Air and

Missile Defense Command (AAMDC), Fort Bliss, Texas, deployed three times to Southwest Asia for Operations DESERT THUNDER I, DESERT THUNDER II, and DESERT FOX. The 32d AAMDC spent approximately 6 months of the year at Camp Doha, Kuwait, performing theater-level air and missile defense (AMD) planning, integration, coordination, and execution functions for the Combined Joint Task Force-Kuwait (CJTF-KU). On each of the deployments, civilian contractors deployed with the 32d AAMDC to support TMD operations.

The 32d AAMDC executes its TMD mission out of a high-tech tactical operations center (TOC) built around the Air and Missile Defense Planning and Control System (AMDPCS). It is a collection of shelters housing the computers and communications equipment capable of conducting all four operational elements of TMD (active defense, passive defense, attack operations, and battle management/command, control, communications, computers, and intelligence). The AMDPCS contains over 15 specific computer/software systems to perform the TMD operations and receives approximately 20 external information feeds providing data to accomplish the mission. The soldiers of the 32d AAMDC are clearly in the lead during day-to-day operations and deployments, but the complexities of the systems and communications require the added assistance and expertise provided by contractors.

A total of nine contractors (approximately 9 percent of the 32d AAMDC's deployed strength) deployed on the first deployment (Feb-Jul 98). However, the newness of the organization and its ad hoc nature (official activation did not occur until Oct 98) had as much to do with the high contractor support numbers as the high tech within the AMDPCS. Also, the 32d AAMDC is a unique organization that consists of a mix of active component (AC) and Florida Army National Guard (FLARNG) soldiers. Developing and executing procedures for immediate deployment of FLARNG Detachment 1 personnel have been challenging but have improved with each deployment. On the subsequent deployments in Nov 98 and Dec 98-Jan 99, a total of five contractors deployed on each occasion as the unit's assigned strength increased and soldiers became trained on the systems.

The contractor support from TRW (Thompson-Ramo-Wooldridge), Brown International Corporation, and CAS, Inc., provided expertise with software, operating systems, hardware, communications links, radios, and information management. The companies supporting the 32d AAMDC are well established in their fields and have unique resources and capabilities to accomplish their assigned missions.

- TRW is a global technology, manufacturing, and service company strategically focused on supplying advanced technology products and services to the automotive, space, defense and information systems markets. TRW traces its history back to 1901 and its world headquarters is located in Cleveland, Ohio. TRW provides service representatives worldwide to the United States military.

- Brown International Corporation is located in Huntsville, Alabama, and specializes in command, control, communications, and intelligence systems development and in hardware and systems

integration of advanced TOCs such as the 32d AAMDC's TOC. Customers include all the branches of the United States Armed Services and allied nations. Brown International Corporation routinely has field service engineers and technicians deployed globally with the military to include personnel aboard naval vessels.

- CAS, Inc., founded in 1979 by Fredric H. Clark and William H. Stender and based in Huntsville, Alabama, provides systems engineering and technical assistance support to Department of Defense and allied nations on current and emerging systems. Major business areas include AMD, aviation, tactical missiles, and command and control. The CAS-West office in El Paso, Texas, provides support to the 32d AAMDC, three air defense artillery brigades, and the United States Army Air Defense Artillery School and Center. Employee deployment during Operation DESERT THUNDER was a first-time event for CAS, Inc.

All the contractors were volunteers and dedicated to providing the best possible service. Some were prior service military and fully aware of the challenges associated with deployments into hazardous duty areas. Contractor preparations were similar to soldier preparations for deployment and included physicals with the necessary immunizations and updating of personal legal affairs and insurance plans. The contractors deployed on the same flights with the soldiers and wore the same desert camouflage uniforms, ate the same food, and lived and worked in the same conditions as the soldiers. At least for the foreseeable future, contractors will remain a necessary part of the 32d AAMDC's battle roster.

Lessons learned from each of the deployments show that it is important for the unit to fully integrate the contractors into the unit preparations and the soldier readiness program. Contractors must

receive the same daily deployment information as soldiers to properly prepare. Contractors were issued protective masks and nuclear, biological, and chemical equipment. In conjunction with the soldiers of the 32d AAMDC, each contractor went through proper fitting and testing of their individual protective mask prior to deployment. Also, the unit's Family Readiness Group was open to the families of contractors and was found to be a good source of support and information. Reception, integration, and preparation are vital to mission accomplishment, whether the individual is a serviceman or a civilian contractor.

Technology is ever changing and information-specific technology seems to change at the fastest rate. With the movement to *Information Age Warfare*, the ties between industry and all the services are moving closer to the battlefield. Each will have to adapt in order to gain the greatest possible benefit from the technology to protect friendly forces in harm's way. The 32d AAMDC and its support contractors are not unique in the joint community's quest for information dominance. They are part of a growing trend throughout the force.

COMBINED INTRATHEATER AIRLIFT IN THE KOREAN THEATER

by
1LT (P) Anthony J. Alfidi
U.S. Army Transportation Corps
Assistant Airlift Officer, Battlefield Coordination Detachment - Korea
DSN (315) 784-9686
E-Mail: anthony.alfidi@osan.af.mil

Introduction

Regional commanders-in-chief (CINCs) have a multiplicity of options to choose from when faced with the challenge of moving and sustaining combat forces. Intratheater airlift bridges the tactical and operational levels of war in a mature theater by delivering troops, equipment, and supplies from Aerial Ports of Debarkation as close to the forward line of own troops as possible. The airlift section of Battlefield Coordination Detachment-Korea (BCD-K) eases this function for the CINC of Combined

Forces Command/United States Forces Korea (CFC/USFK) by coordinating airlift requests from the ground component command (GCC) through the air component commander.

Why the BCD Exists

Simply put, a BCD is the Army's liaison to the Air Force for deep operations in a given theater. Four BCDs exist, fielded in U.S. Army Europe, XVIII Corps (Airborne), USFK, and one in the Reserve Component. Technological advances that have extended the reach of weapon,

surveillance, and information systems necessitate a robust BCD that can deconflict airspace traffic and integrate Army and Air Force attack assets (and on occasion Navy and Marine Corps assets when necessary). The BCD is the hinge upon which deep operations swing in a joint environment, because only a BCD can help a joint staff synchronize multiservice air assets, parse an integrated tasking order (ITO), and cross-talk command and control (C2) warfare across a family of tactical information systems.

The BCD-K commander wears three hats. First, as commander of BCD-K, he directs the unit's operations and provides guidance to its section chiefs. Second, as a joint firepower officer on the staff of CFC, he advises the combined force on the application of weapon systems available to both the Korean and American militaries in the arsenals of each of their service components. Third, as a ground liaison officer to the air component commander, he advises the commander of the 7th Air Force and air component commander on the employment of Air Force units in support of the ground scheme of maneuver.

Why BCD-K Airlift Exists

The airlift section of BCD-K is the GCC commander's representative to the Director of Mobility Forces-Korea (DIRMOBFOR-K), an Air Force General who heads the Combined Air Mobility Division (CAMD) within the air component commander's joint air operations center (JAOC). BCD-K Airlift explains the GCC's scheme of maneuver to the Air Force, translating Army *"green"* into joint *"purple"* terms. The professional transportation soldiers in the section work Army movement requirements into the Air Force mission planning process and help the DIRMOBFOR adjust airlift support to meet the requirements of the unified campaign plan.

Soldiers assigned to the BCD-K Airlift section must be professionally qualified to evaluate airlift missions and are required to attend the Airlift Planner's Course at Fort Eustis, Virginia, and the Joint Airspace Command and Control Course at Hurlburt Field, Florida.

How BCD-K Airlift Supports Air Movement

BCD-K Airlift receives requests for fixed-wing air transportation support from the combined airlift office (CALO) within the combined transportation movement center (CTMC). The CTMC is GCC's tasking authority over Army-specific transportation assets, including trucks, rotary-wing aviation, and seaport operating activities; it also has the authority to request additional transportation support from other service components. The airlift section reviews each airlift request to ensure it complies with the CINC's overall movement priorities and with the specific capacity and configuration of available Air Force aircraft. Once the section approves a request, the section forwards it to the air mobility planners in the Korean Air Mobility Element (KAME), a subset of the CAMD that allocates tactical lift assets and tasks airlift wings to fly specific missions.

Advantages of Liaison

One major advantage of having an Army transportation representative on an air component commander mobility planning staff is that it expedites the movement of immediate and emergency missions. The BCD airlift section can expedite the approval process for critical supplies and high-priority ammunition throughout the theater by identifying critical requests directly to the CAMD theater air liaison officer (TALO), who can then immediately allocate an air mission. Otherwise, such a mission would be too late to be included

in the current ITO cycle. The TALO will clear airspace and coordinate with the receiving airfield (or directly with Army units on a drop zone, if a paradrop mission is initiated) while the KAME mission planners divert available airframes.

BCD-K Airlift maintains contact with Army ground liaison officers (GLOs) assigned to each Air Force airlift wing, who assist their wing commanders in understanding the effects that Army combat operations have on the delivery of materiel by air.

Unique Aspects of Operations in Korea

In the Korean theater of operations, BCD-K Airlift has three prime-time training opportunities: Exercise Reception Staging Onward-Movement and Integration (RSOI), Exercise Ulchi Focus Lens (UFL), and Exercise Foal Eagle. Each exercise offers a chance for airlifters to develop professional competence in contingency air mission planning and validation.

- Exercise RSOI simulates the reception, staging, onward-movement, and integration of United States forces arriving from outside the theater. BCD-K is concerned exclusively with the onward-movement and integration aspects of this as the push of combat power forward can be speeded by tactical airlift. The reception and staging of incoming forces will of course impact the availability of aircraft for tactical missions, so the BCD-K Airlift section has learned to keep the CTMC apprised of developments that affect the ability of USFK to redirect aircraft from strategic missions.

- Exercise UFL is a theater-level command post exercise that tests the ability of CFC to execute its go-to-war plan. Air Force aircraft play a major role in moving forces from all components around the battlefield, and BCD-K

Airlift's identification of immediate and emergency airlift requests is often the key to successful exploitation of changes in the ground situation.

- Exercise Foal Eagle focuses on engaging the theater rear echelons in rear area battle management. BCD-K Airlift's main effort is to keep the DIRMOBFOR-K updated on enemy ground threats to air bases and airfields, enhancing the ability to protect air mobility units.

What BCD-K Airlift Does Not Do

BCD-K Airlift does not plan or validate strategic (intertheater) airlift missions. This is outside the scope of the theater's responsibility and is the sole responsibility of Air Mobility Command. Tactical airlift can be planned for air wings based in Japan, so to simplify mobility planning the DIRMOBFOR-K and BCD-K consider airlift between Japan and Korea to be intratheater airlift.

BCD-K Airlift does not create load plans for individual airlift missions. This is done by the Air Force loadmasters, who are on station with the aircraft. The airlift section's key task in validating an Army-proposed load is to verify the following:

- The cargo is of sufficiently high priority to warrant transport by air.

- The cargo can fit on available planes (typically C-130 for tactical lift).

Conclusion

BCD-K Airlift's liaison function between the Army and Air Force in Korea exercises quality control over Army-nominated airlift missions and helps the Air Force understand Army materiel requirements. Joint airlift mission planning saves time, averts mission cancellations, minimizes aircraft diversions, and prevents delivery delays.

A2C2 – A COMMAND RESPONSIBILITY

by
LTC Barry G. Murray
Army Joint Support Team, Instructor
Hurlburt Field FL
DSN 635-2267

Editor's Note: LTC Murray was previously an instructor for the Army Joint Support Team-Combined Arms Center-Combined Arms Training, Command and Control Warrior School, Hurlburt Field, Florida. On 16 July 1999, he was given command of the 6-101st Aviation Regiment, Fort Campbell, Kentucky.

The old maxim, “*train as you will fight*,” was lost when it came to the challenges associated with Army airspace management. So FM 100-103 coined the term *Army Airspace Command and Control (A2C2)* in 1987. “*Command and control (C2)*” replaced the word “*management*” when referencing the Army’s use of airspace. The intent behind the term A2C2 was to draw more command emphasis into the process of identifying, coordinating, integrating, and regulating airspace use and users. It is the commander who is responsible for everything that takes place in his area of operations (AO) and should demand visibility of his entire battlespace—to include the third (3d) dimension of airspace.

The commander is the hub of proper airspace management. He must use his influential role in the training and proper resourcing, manning, and empowering of his A2C2 element to integrate the Army’s airspace requirements into the joint or combined environment. The commander can improve the synchronization of forces in his entire AO by emphasizing airspace training and making his A2C2 element an integral part of his battlestaff. A

commander should use his A2C2 element as a resource to maximize the combat effectiveness of his forces, integrate in the joint environment, and reduce unnecessary risks.

Military leaders who understand doctrine—the way things ought to be—can best integrate their airspace requirements and maximize the use of the 3d dimension on the next battlefield. To accomplish integration, we must understand how the airspace process or system works, then conduct A2C2 training with a joint/combined perspective. The Theater Air-Ground System (TAGS) consists of all the component’s air-ground systems tied together with communications, computers, and liaisons. The Army Air Ground System (AAGS) is but one component’s air-ground system within TAGS.

The AAGS is superimposed on the existing Army C2 structure from the numbered Army through corps, divisions, brigades, and battalions. Each echelon of command has command posts where staff integration and communications capability allows the commander to exercise C2 over his subordinate units. Since airspace affects all operations, it is a command function.

The AAGS accomplishes coordination and integration starting at the lowest level of command that can *identify* the airspace requirement and pass it through the chain of command’s operational

channels to deconflict with all known Army airspace users. The AAGS facilitates the coordination and integration of all members of the combined arms team. Maneuver units normally have the lead for battlespace deconfliction. The controlling maneuver headquarters must coordinate organic and/or supporting indirect fire capabilities that have airspace requirements. Members of the combined arms team conduct missions in concert with other supporting airspace users. Normally the maneuver commander tasks his A2C2 element to synchronize all the different airspace users that support the ground scheme of maneuver. *The A2C2 element is a staff function that assists the commander by identifying, coordinating, integrating, and regulating combat airspace users.*

The A2C2 element, as a coherent part of the Army commander's intricate C2 system, is an extension of his ability to C2 supported and supporting forces in the 3d dimension of battlespace. To facilitate that function, the A2C2 element is normally located at each command post next to the fire support element (FSE) and air defense liaison element.

To no one's surprise, Army commanders are normally not burdened with the responsibility of controlling the airspace, but Army commanders do control their airspace users. Therefore, the maneuver commander is responsible for synchronizing battlespace users. Airspace requirements are coordinated through the A2C2 element using operational channels, up the Army's existing C2 structure. This occurs at both the tactical and operational levels of war and is normally an operations staff function. Doctrinally, the Army G-3 or S3 (operations) has A2C2 responsibility and delegates supervisory responsibility of the A2C2 element to the G-3 or S3 Air. The G-3 or S3 Air merely assists the commander by planning, coordinating, directing, and controlling air assets that support the ground scheme of maneuver, logistics, and intelligence functions. It is up to the commander to form an effective

A2C2 element to handle these critical tasks and function as a co-equal, integrated staff member.

Airspace control in a combat zone is accomplished using a combination of airspace control measures, fire support coordinating measures, air defense measures, and standard maneuver graphics. The A2C2 element coordinates both positive and procedural airspace control measures to manage and integrate airspace requirements, by facilitating the close and continuous coordination of Army airspace users with other airspace users.

Using procedural airspace control measures, commanders and their staff procedurally control airspace users in the same way they control ground forces. Operational terms and graphics are designed to communicate instructions to subordinate ground units and are normally well understood. Not so well understood are airspace control measures and operational terms and graphics that do the same thing for airspace users. In fact, operational terms and graphics for Army air and ground users are contained in the same publication, FM 101-5-1, *Operational Terms and Graphics*. Just as air users are held responsible for knowing and operating by designated ground graphics and control measures, so too must ground users know and follow the designated air graphics and control measures. Airspace control measures are just another means to help the commander make order out of virtual chaos on the battlefield.

While using the entire staff's input during the synchronization process, the commander compares the operational hazards and determines what control measures need to be employed to mitigate potential risks. Since airspace is a permissive environment, the lack of an airspace control measure will not keep him from fighting. Whether a commander requests an airspace control measure or not, he should consider other joint/

combined airspace users who are not involved in his fight and deliberately address any potential risks associated with the 3d dimension of battlespace. Again, only the commander should determine the acceptable balance between risk reduction and operational flexibility. Since the Army normally does not have approval authority for all airspace control measures submitted by their subordinate units, the A2C2 element deconflicts airspace users at each echelon of command before coordinating the airspace control measure with joint and/or combined forces. Once airspace control measures are deconflicted with Army operations, they are submitted to whoever the joint force commander (JFC) has designated the airspace control authority (ACA). Since the airspace above surface forces is a joint medium to be used by all components of the joint force, the JFC or his executive agent (ACA) promulgates control measures to mitigate risks and deconflict multiple users within his area of responsibility (AOR). The coordination of airspace requirements in this manner helps maximize the warfighter's capabilities and provides the most effective, efficient use of the entire battlespace.

Note: The ACA does not have the authority to approve, disapprove, or deny combat operations. That authority is vested in operational commanders. (JP 3-52, pg V)

Command emphasis on airspace begins when A2C2 is a training priority. The integration of A2C2 in collective training events and staff planning exercises is essential. A key to enhancing combat operations is to maximize weapons, reconnaissance, and intelligence systems capabilities by knowing how to integrate our requirements into the JFC's theater of operations airspace. Unless we train to fight in all dimensions of the battlespace using a simulated, realistic joint environment, the Army may fail to be as relevant a force in future operations.

We teach soldiers, noncommissioned officers and officers, to look forward and rearward, left and right—to think in terms of the battlefield framework—we also need to look up. Soldier awareness must include vehicles, systems, and weapons that move, shoot, and communicate in the 3d dimension. Likewise, we must take into account airspace considerations by integrating the A2C2 element into our staff planning process. For each course of action (COA) developed, we should include selection criteria that affect airspace issues; it doesn't stop there. During thorough course of action wargaming sessions, consider how airspace must be coordinated, integrated, and synchronized to support the land battle while reducing any impacts on others. Then process airspace requirements through the Army forces' senior representative in the joint air operations center (JAOC), the battlefield coordination detachment (BCD).

During the planning process, the first critical step in airspace coordination and integration is to *identify* all the airspace users and their requirements. It's imperative that a knowledgeable representative for each system provides airspace use requirements and helps identify possible conflicts. Then using the commander's guidance, the G-3/S3 Air must forward airspace requirements to the next higher command level for furthering coordination. One technique to identify airspace requirements for coordination is to hold an A2C2 synchronization meeting for all the airspace users. For all the players to participate, the commander needs to make the A2C2 synchronization meeting one of the unit's battle rhythm scheduled events and enforce everyone's attendance. This method will help the G-3/S3 Air gain total asset visibility of the combined arms team's airspace users. Anyone who expects to use airspace needs to coordinate and integrate their efforts with the A2C2 element. Members of the A2C2 element that attend

the synchronization meeting must understand their own battlefield operating system's (BOS's) requirements.

For example, the G-2 (intelligence) unmanned aerial vehicle (UAV) coordinator needs to know the impact a blanket UAV restricted operations zone (ROZ) has on other airspace users. The larger size and longer time frame the ROZ is activated the more intrusive the UAV is to other airspace users. Likewise, when a EH-60 aircraft ROZ needs to be deconflicted with other airspace users, the G-2 special electronic mission aircraft (SEMA) coordinator needs to know the parameters in which the EH-60 mission profile can be adjusted and still facilitate mission accomplishment. Subordinate BOS's commanders are responsible for integrating their respective systems into the maneuver commander's scheme of maneuver. They should make sure their liaisons attending the A2C2 synchronization meeting are tactically and technically knowledgeable and experienced enough with their systems to facilitate coordination efforts and prevent mutual interference. This is an essential step in the AAGS towards the integration process at the lowest level possible before passing information to the higher headquarters A2C2 element.

Building a minimum-risk route (MRR) is another realistic example that requires integrated staff involvement during airspace coordination. A MRR facilitates the transition of fixed-wing, fast moving, low level aircraft through the ground maneuver commander's AO. The ground maneuver brigade commander is responsible for the nomination of MRRs through his AO. MRR nominations should be based upon mission, enemy, terrain and weather, troops and support available, time available considerations and include total staff integration. The missions and locations of friendly airspace users such as artillery groups or concentrated fire

areas based on the planned scheme of maneuver, enemy air defense, terrain/ground clutter (cover and concealment), and time or phases of the operations all affect MRR placement. But, we rarely get this simple task done with the right staff and liaisons involved or at the appropriate decision level. So the *identify* step in A2C2 element is more than just a means to promote timely engagement of enemy aircraft while reducing the potential for fratricide (that is, identification friend or foe/standard identification feature). It's greater than just Army aviation, air defense, field artillery, or G-3/S3 Air functions; it's an essential step in the effective use of the commander's battlespace to facilitate Army and other forces' operations.

Note: A function of the fire support coordination is to deconflict airspace usage as required. (JP 3-09.3)

The fluid exchange of information between the battlestaff for plans, operations, intelligence, and fires is critical to timely engagement of enemy forces. Likewise, communication that provides a truly seamless exchange of information between the fire support coordinator (FSCOORD), air defense coordinator, and A2C2 element is essential to effective airspace *coordination*.

Indirect fire weapons and close air support (CAS) aircraft require the use of airspace to perform their missions. As the most dynamic airspace user, field artillery's indirect fires affect airspace by positioning their firing batteries, gun-target-lines, maximum/minimum ordinance, and advanced tactical missile system target area hazards, etc. The A2C2 element can quickly lose visibility of field artillery actions. The FSCOORD or his deputy needs to be an integral part of the A2C2 element. The commander's designated airspace manager (G-3/S3 Air) needs the FSE's support to maintain a total situational awareness.

Integration of airspace control and air defense is imperative to maximize the combat effectiveness of the warfighter. One simply cannot separate airspace control from air defense (AD). The A2C2 element and the AD element must work hand-in-glove to protect and facilitate friendly operations while closing the door on enemy air intrusions.

An example that requires total A2C2 element members participation may occur when the ground maneuver commander determines he wants to mass maneuver forces and fires using aviation, artillery, CAS, etc., in his AO, while synchronizing control of the air defense weapons control status in the objective area. The A2C2 element that is integrated in planning phases may recommend a high density airspace control zone. The A2C2 element's recommendation to implement such an airspace control measure is both a combat multiplier and form of force protection.

The A2C2 element *regulates* Army airspace users in unit tactical standard operating procedures, aviation procedures guide, operations order, and various annexes, etc. However the regulating of airspace is normally a function of the joint force air component commander (JFACC) if so designated the ACA by the JFC. As such, the JFACC/ACA has the responsibility to develop broad policies and procedures in the airspace control plan (ACP) and establish a theater

airspace control system. The current details about airspace control measures, rules of engagement, and hostile attack criteria are published in the airspace control order (ACO). The ACP and ACO are regulatory in nature once the JFC approves it. Army A2C2 elements provide input to these theater-wide governing documents by forwarding airspace requirements through their chain-of-command to the BCD that is co-located at the joint/combined air operations center.

In conclusion, the Army commander has a key role in the theater's airspace management process. Commanders can take responsibility by increasing command emphasis on training soldiers to think about airspace as a joint environment and supporting the A2C2 element's ability to identify, coordinate, integrate, and regulate airspace at the lowest Army levels through total staff integration. We must remember A2C2 is not just about intangible airspace—it's about planning to employ the users (soldiers, airmen, sailors, etc.) of the airspace. The commander ultimately determines how his airspace users fight in the 3d dimension of battlespace. Then the A2C2 element determines what needs to be coordinated with adjacent and higher to integrate the Army's use and users of airspace into the joint and combined airspace environment in order to maximize combat capabilities and reduce unnecessary risks.

NOTICE

Make the ALSB *YOUR* bulletin—submit ideas and comments for ALSB 99-3 by close of business—

6 October 1999

**E-mail: alsaeditor@langley.af.mil
Managing Editor: Shirley Ferguson
DSN: 575-0850
COMM: (757) 225-0850**

ALSA PROJECTS UPDATE

Aviation Operations on Urban Terrain – Multiservice Tactics, Techniques, and Procedures for Aviation Operations on Urban Terrain

This publication provides multiservice tactics, techniques, and procedures (TTP) for the preparation and execution of fixed- and rotary-wing aviation operations. It provides a source of reference material to aviation and ground personnel in planning and coordinating tactical aviation urban operations and promotes an understanding of the complexities of urban terrain. This publication is designed for use at the tactical level and incorporates lessons learned, information from real-world and training operations, and TTP from various sources applicable to the urban environment.

Current Status: Final Coordination Draft released for worldwide review. Contact LTC Zoellers (DSN 575-0962) or Maj Jenkins (DSN 575-0961) or E-mail: william.zoellers@langley.af.mil or steven.jenkins@langley.af.mil.

BMO – Multiservice Tactics, Techniques, and Procedures for Bomber-Maritime Operations

This publication discusses integration of USAF bombers (B-52, B-1, B-2) with naval maritime forces. It delineates bomber capabilities/limitations, “arms” bomber strike mission participants with a comprehensive knowledge of naval maritime procedures, discusses planning procedures, and highlights key tactical considerations for weapon system integration. This publication will better educate our joint forces, contribute to more efficient utilization of bomber assets, and enhance joint strike operations. (Classification: **SECRET**)

Current Status: Signature Draft approved. Contact CDR Woodard (DSN 575-0967) or Maj McManus (DSN 575-0968) or E-mail: jim.woodard@langley.af.mil or ronald.mcmanus@langley.af.mil.

EOD-J – Multiservice Procedures for Explosive Ordnance Disposal in a Joint Environment

This publication provides procedures to assist EOD units in planning, coordinating, and integrating explosive ordnance disposal operations in a joint environment. It provides working relationships for command and control and addresses equipment, maintenance, supply lines, communications, and manning for EOD joint operations. In addition, this publication addresses standardized reporting and intelligence procedures, joint training standards, and automated information sharing/management.

Current Status: Final Coordination Draft released for worldwide review. Contact Lt Col Vehr (DSN 575-0966) or MAJ Starkey (DSN 575-0965) or E-mail: mary.vehr@langley.af.mil or richard.starkey@langley.af.mil.

ICAC2 – Multiservice Tactics, Techniques, and Procedures for Integrated Combat Airspace Command and Control

This publication facilitates multiservice coordination, integration, and regulation of combat airspace during exercises, contingencies, and other operations where more than one service must share the airspace for operational use. It outlines the importance of an integrated airspace control function on the battlefield and describes the organization responsible for airspace control in joint operations. It defines procedures for planning, implementing, executing, and deconflicting airspace, including addressing specific airspace control issues for specialized missions. It also outlines the information, interfaces, and communications supporting the integrated airspace control function.

Current Status: Signature Draft released for command approval. Contact Lt Col Vehr (DSN 575-0966) or MAJ Starkey (DSN 575-0965) or E-mail: mary.vehr@langley.af.mil or richard.starkey@langley.af.mil.

JAOC/AAMDC – Multiservice Tactics, Techniques, and Procedures for Joint Air Operations Center (JAOC)/Army Air and Missile Defense Command (AAMDC) Coordination

This publication documents methods used to coordinate AAMDC operations for the Army forces (ARFOR) with JAOC operations for the joint force air component commander/area air defense commander/airspace control authority (JFACC/AADC/ACA). It defines command and control relationships between AAMDC and a JAOC, and it includes the role of the battlefield coordination detachment (BCD) as the principal liaison element between the ARFOR and the JFACC. It addresses JAOC/AAMDC coordination and integration procedures in five areas: intelligence preparation of the battlespace (IPB), passive defense, active defense, attack operations, and C4I. It specifically addresses integration between the AAMDC and an Air Force-established JAOC; some of the principles, relationships, and processes described may apply in other circumstances, such as when the USN or USMC is JFACC/AADC/ACA. In doing so, this publication provides readers a common frame of reference for establishing effective working relationships.

Current Status: Signature Draft released for command approval. Contact Lt Col Brown (DSN 575-0964) or LTC Kirmse (DSN 575-0963) or E-mail: mark.brown@langley.af.mil or kevin.kirmse@langley.af.mil.

JIADS – Multiservice Tactics, Techniques, and Procedures for Joint Integrated Air Defense Systems

The publication provides a single, consolidated reference addressing existing service air defense systems, their capabilities, connectivity and processes as well as describing concepts for the relationships and use of information within service data and planning networks. This publication enhances the effectiveness and efficiency of organizations participating in theater air and missile defense.

Current Status: Final Coordination Draft released for worldwide review. Contact Maj. McDonald (DSN 575-0903) or LTC Deneff (DSN 575-0854) or E-mail: louis.mcdonald@langley.af.mil or wayne.deneff@langley.af.mil.

Joint Publication 3-55.1 – *Joint Tactics, Techniques, And Procedures For Unmanned Aerial Vehicles*

This project originated during the 16-17 April 96 joint doctrine working party (JDWP), which identified the requirement to revise Joint Pub 3-55.1 prior to reformatting. The JDWP recognized the need to provide current information regarding joint tactics, techniques, and procedures for unmanned aerial vehicles (UAV) operations. Joint Pub 3-55.1 will provide overarching doctrinal guidance and tactics, techniques, and procedures relating to joint UAV employment as well as providing principles for the planning and execution of such operations.

Current Status: Preliminary Coordination Draft has been forwarded to Lead Agent. Contact LTC Fowler (DSN 575-0853) or LtCol Callaway (DSN 575-0851) or E-mail: lawrence.fowler@langley.af.mil or james.callaway@langley.af.mil.

JTF-IM – *Multiservice Procedures for Joint Task Force Information Management*

This publication provides information management TTP for the JTF headquarters and components. It facilitates the efficient distribution, control, and protection of information. The publication also provides techniques for filtering, fusing, and prioritizing information.

Current Status: Published and available on ALSA homepage (<http://www.dtic.mil/alsa>) and through service distribution channels (FM 101-4, MCRP 6-23A, NWP 3-13.1.16, AFTTP (I) 3-2.22). Contact LTC Zoellers (DSN 575-0962) or Maj Jenkins (DSN 575-0961) or E-mail: william.zoellers@langley.af.mil or steven.jenkins@langley.af.mil.

JTMTD – *Multiservice Tactics, Techniques and Procedures Joint Theater Missile Target Development*

This publication documents TTP for joint theater missile (TM) target development in early entry and mature theater operations. It focuses on providing a common understanding of the TM target system and information on the component elements involved in attack operations target development. It focuses on integration of the IPB methodology as it applies to TMs, collection management, and target development to include sensor employment considerations to support those operations. Its intent is to help JTF and subordinate component commanders and their staffs develop a cohesive approach to the processes necessary to conduct offensive operations against TM forces.

Current Status: Signature Draft approved. Contact Lt Col Brown (DSN 575-0964) or LTC Kirmse (DSN 575-0963) or E-mail: mark.brown@langley.af.mil or kevin.kirmse@langley.af.mil.

NBC Defense of Fixed Sites, Ports, and Airfields – Multiservice Procedures for Nuclear, Biological, and Chemical Defense of Fixed Sites, Ports, and Airfields

In August 1996 the U.S. Army Chemical School (USACMLS), serving as lead agent at the direction of the Joint Service Integration Group (JSIG) for NBC Defense, initiated the development of a multiservice publication on NBC Defense of Fixed Sites, Ports, and Airfields. Service review of the coordinating draft of this publication confirms that it does not meet the needs of all services. The JSIG has asked ALSA to complete the development of this publication under the ALSA process.

Current Status: Final Coordination Draft released for worldwide review. Contact CDR Woodard (DSN 575-0967) or Maj McManus (DSN 575-0968) or E-mail: jim.woodard@langley.af.mil or ronald.mcmanus@langley.af.mil.

RM – Multiservice Procedures for Risk Management

This publication is intended to provide common and integrated risk management methods for joint planners and operators. Current joint publications direct the use of risk management techniques but do not define the process. RM will fill this void by providing a common set of risk management tools appropriate for operations in a joint environment.

Current Status: First JWG was held Aug 99. Contact LTC Fowler (DSN 575-0853) or LtCol Callaway (DSN 575-0851) or E-mail: lawrence.fowler@langley.af.mil or james.callaway@langley.af.mil.

SEAD – Multiservice Tactics, Techniques, and Procedures for Suppression of Enemy Air Defenses

This publication provides the JTF and subordinate component commanders, their staffs, and SEAD operators with a single, consolidated reference that discusses the employment of intelligence, surveillance, and reconnaissance (ISR) assets and electronic and destructive attack weapons systems to destroy/disrupt/degrade the enemy's air defenses. This publication documents TTP for SEAD-related ISR systems, electronic and destructive attack aircraft, fires, and other assets at the **SECRET** level.

Current Status: Signature Draft approved. Contact Maj McDonald (DSN 575-0903) or LTC Deneff (DSN 575-0854) or E-mail: louis.mcdonald@langley.af.mil or wayne.deneff@langley.af.mil.

Survival, Evasion, and Recovery – Multiservice Tactics, Techniques, and Procedures for Survival, Evasion, and Recovery

This publication is a consolidated quick reference guide for basic survival, evasion, and recovery information. It will be printed on light brown, weatherproof stock and be pocket-sized for portability. The guide includes basic survival information on sustenance (food and water), personal protection, emergency medical, personal hygiene, movement techniques, navigation, evading the enemy, signaling, recovery operations, and induced conditions (nuclear, biological, and chemical).

Current Status: At the printers. Available on ALSA homepage (<http://www.dtic.mil/alsa>). Contact LTC Zoellers (DSN 575-0962) or Maj Jenkins (DSN 575-0961) or E-mail: william.zoellers@langley.af.mil or steven.jenkins@langley.af.mil.

TADIL-J – Introduction to Tactical Digital Information Link and Quick Reference Guide

This publication provides the warfighter and JTF planners and staff unclassified guidance for TADIL-J planning and operations. It can be used to gain an understanding of TADIL-J operations and its role in the multi-TADIL world, thus understanding its impact on plans and operations. It also will serve as a central locator for TADIL-J references, manuals, and points of contact to increase the warfighter's knowledge, which in turn maximize combat effectiveness. Enhanced mission planning and coordinated execution are the results.

Current Status: Signature Draft approved. Contact LTC Bilyeu (DSN 575-0905) or Maj Campbell (DSN 575-0906) or E-mail: elisabeth.bilyeu@langley.af.mil or robert.campbell@langley.af.mil

BECOME ACTIVE IN THE PUBLICATION OF THE ALSB

The value of this publication is directly related to the quality of input received from our audience.

If our publication is not covering the topics you would like to see, tell us. Better yet, send us an article on a joint warfighting topic for publication in the bulletin. Some possible ***HOT*** topics are—*operations in urban terrain, any related areas from operations in Kosovo, home land defense, new operational capabilities, and joint exercises (especially Roving Sands and Ulchi Focus Lens)*. We would also like to offer an opportunity for "point-counter-point" presentation on joint search and rescue.

SUBSCRIBER REQUEST FORM

ORGANIZATION: _____

ADDRESS:

STREET: _____

CITY: _____

STATE: _____

ZIP CODE: _____

E-MAIL ADDRESS: _____

POC: _____

DSN PHONE: _____ COMMERCIAL PHONE: _____

NUMBER OF COPIES REQUIRED: _____

DO YOU WANT HARD COPIES: _____ ELECTRONIC COPY: _____ BOTH: _____?

COMMENTS/SUGGESTIONS: _____

NOTE: Fill out this form or send information via e-mail to ALSA's Publication NCO at todd.loisel@langley.af.mil

ALSA CENTER
114 ANDREWS STREET
ATTN: THE AIR LAND SEA BULLETIN
LANGLEY AFB VA 23665-2785

ALSA CENTER

ATTN: ALSB

114 ANDREWS STREET

LANGLEY AFB VA 23665-2785

OFFICIAL BUSINESS